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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,997	03/26/2004	Sanjiv Nanda	030645	8496
23696 7590 11/16/2007 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			EXAMINER AJAYI, JOEL	
			ART UNIT 2617	PAPER NUMBER
			NOTIFICATION DATE 11/16/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/809,997

Applicant(s)

NANDA, SANJIV

Examiner

Joel Ajayi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1-25, 27-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gudjonsson et al. (U.S. Patent Number: 6,564,261)** in view of **Takats (U.S. Patent Application Number: 2002/0042848)**, and further in view of **Cain (U.S. Patent Number: 6,628,620)**.

Consider **claim 1**; Gudjonsson clearly discloses a server terminal configured to operate in a cluster on a network backbone (column 8, lines 18-34), comprising: a call with a first terminal (client) connected to the network backbone (column 8, lines 18-34); supporting an inter-cluster call between second and third terminals (clients) by establishing a route on the network backbone for each communication packet transmitted from the second terminal to the third terminal (column 8, lines 18-34).

Gudjonsson fails to disclose that the server terminal comprising a user interface to transmit and receive communications and a processor.

In the same field of endeavor Takat clearly discloses the server terminal comprising a user interface to transmit and receive communications and a processor (paragraph 42).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Takat into the method of Gudjonsson in order to optimize the provision of services by service objects in a network management system.

Gudjonsson and Takat fail to disclose a first terminal connected to an ad hoc network.

In the same field of endeavor Cain discloses a first terminal connected to an ad hoc network (column 14, line 56- column 15, line 5).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Cain into the method of Gudjonsson and Takat in order to provide a method for sending data in ad hoc networks.

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Consider **claim 12**; Gudjonsson clearly discloses a method of communications on a server terminal configured to operate in a cluster on a network backbone (column 8, lines 18-34), comprising: a server terminal during a call with a first terminal connected to the network backbone (column 8, lines 18-34); and supporting an inter-cluster call between second and third terminals by establishing a route on the network backbone for each communication packet transmitted from the second terminal to the third terminal (column 8, lines 18-34).

Gudjonsson fails to disclose transmitting and receiving communications at the server terminal.

In the same field of endeavor Takat clearly discloses transmitting and receiving communications at the server terminal (paragraph 42).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Takat into the method of Gudjonsson in order to optimize the provision of services by service objects in a network management system.

Gudjonsson and Takat fail to disclose a first terminal connected to an ad hoc network.

In the same field of endeavor Cain discloses a first terminal connected to an ad hoc network (column 14, line 56- column 15, line 5).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Cain into the method of Gudjonsson and Takat in order to provide a method for sending data in ad hoc networks.

Consider **claim 25**; Gudjonsson clearly discloses a server terminal configured to operate in a cluster on a network backbone (column 8, lines 18-34), comprising: a call with a first terminal connected to the network backbone (column 8, lines 18-34); routing on the network

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backbone for each communication packet transmitted from a second terminal to a third terminal during an inter-cluster call (column 8, lines 18-34).

Gudjonsson fails to disclose a means for a user to participate in a call and means for establishing a route.

In the same field of endeavor Takat clearly discloses means for a user to participate in a call (user interface) and means for establishing a route (processor) (paragraph 42).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Takat into the method of Gudjonsson in order to optimize the provision of services by service objects in a network management system.

Gudjonsson and Takat fail to disclose a first terminal connected to an ad hoc network.

In the same field of endeavor Cain discloses a first terminal connected to an ad hoc network (column 14, line 56- column 15, line 5).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Cain into the method of Gudjonsson and Takat in order to provide a method for sending data in ad hoc networks.

Consider **claims 2, 13**; Gudjonsson discloses that the processor is further configured to establish the same route for each of the communication packets transmitted from the second terminal to the third terminal during the inter-cluster call for a first type of call, and to establish a different route for at least two of the communication packets transmitted from the second terminal to the third terminal during the inter-cluster call for a second type of call (column 7, lines 28-31; column 8, lines 18-34).

Consider **claims 3, 15**; Gudjonsson discloses that the processor is further configured to establish the route for each of the communication packets transmitted from the second terminal to the third terminal during the inter-cluster call by constructing a network backbone topology map and selecting the established route based on information in the network backbone topology map (column 16, lines 7-19).

Consider **claims 4, 16**; Gudjonsson discloses that the processor is further configured to select the established route for each of the communication packets transmitted from the second terminal to the third terminal during the inter-cluster call as a function of the number of intermediary clusters between the second and third terminals along the selected established route for such transmission (column 8, lines 18-34).

Consider **claims 5, 17**; Gudjonsson discloses that the processor is further configured to select the established route for each of the communication packets transmitted from the second terminal to the third terminal during the inter-cluster call as a function of the energy of such transmission (every mode of communication is provided a route) (column 7, lines 28-31).

Consider **claims 6, 18**; Gudjonsson discloses that the processor is further configured to establish the route for each of the communication packets transmitted from the second terminal to the third terminal during the inter-cluster call by mapping the third terminal to a primary route on the network backbone to a first adjacent cluster and a secondary route on the network backbone to a second adjacent cluster, and selecting the primary route or secondary route (column 7, lines 28-31; column 8, lines 18-34).

Cain discloses that the route is established on an ad hoc network (column 14, line 56-column 15, line 5).

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Consider **claims 7, 20**; Gudjonsson discloses that the processor is further configured to select the primary route during a first type of inter-cluster call, and select either the primary or secondary route during a second type of call, the selection of the primary or secondary route being based on the loading of the network backbone (column 7, lines 28-31; column 8, lines 18-34).

Cain discloses that the route is based on an ad hoc network (column 14, line 56- column 15, line 5).

Consider **claims 8, 21**; Gudjonsson discloses that the processor is further configured to establish the route for each of the communication packets transmitted from the second terminal to the third terminal during the inter-cluster call by mapping the first adjacent cluster to a first transmitting gateway and a master terminal for the first transmitting gateway, and mapping the secondary route to a second transmitting gateway and a master terminal for the second transmitting gateway (column 7, lines 28-31; column 16, lines 7-19).

Consider **claims 9, 22**; Gudjonsson discloses that the processor is further configured to establish the route for each of the communication packets transmitted from the second terminal to the third terminal during the inter-cluster call by communicating with the master terminal mapped to the adjacent cluster corresponding to the selected one of the primary and secondary routes to support intra-cluster scheduling and forwarding of such communication packet from the second terminal to the transmitting gateway mapped to such corresponding adjacent cluster (column 7, lines 28-31; column 16, lines 7-19).

Consider **claims 10, 23**; Gudjonsson discloses that the processor is further configured to establish the route for each of the communication packets transmitted from the second terminal



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to the third terminal during the inter-cluster call using a network address assigned to third terminal, and received from the network backbone in response to a location request (column 10, lines 23-46).

Consider **claims 11, 24**; Gudjonsson discloses that the processor is further configured to establish the route for each of the communication packets transmitted from the second terminal to the third terminal during the inter-cluster call using a network address assigned to third terminal (column 7, lines 28-31; column 10, lines 23-46).

Takat discloses that the information is stored in the cache (paragraph 42).

Consider **claim 14**; Gudjonsson discloses that a different route is established for at least two of the communication packets transmitted from the second terminal to the third terminal during the inter-cluster call (column 7, lines 28-31).

Consider **claim 19**; Gudjonsson discloses that the primary route is selected for each of the communication packets transmitted from the second terminal to the third terminal during the inter-cluster call (column 7, lines 28-31).

Consider **claims 27 and 29**; Cain discloses that the processor establishes a route on the ad hoc network between an inter-cluster bridge terminal in a first cluster and an inter-cluster bridge terminal in a second network (ad hoc networks) (column 14, line 56- column 15, line 5).

Consider **claim 28**; Gudjonsson discloses that the inter-cluster bridge terminals are Address, Location, and Route (ALR) servers (the servers perform this function) (column 8, lines 18-34; column 10, lines 23-46).

Consider **claim 30**; Gudjonsson discloses that establishing a route between an inter-cluster bridge terminal in the first cluster and an inter-cluster bridge terminal in the second

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network includes establishing a route between Address, Location, and Route (ALR) servers (the servers perform this function) (column 8, lines 18-34; column 10, lines 23-46).

**Claim 26** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Gudjonsson et al. (U.S. Patent Number: 6,564,261)** in view of **Chrabaszcz (U.S. Patent Number: 6,134,673)**, and further in view of **Cain (U.S. Patent Number: 6,628,620)**.

Consider **claim 26**; Gudjonsson clearly discloses a method of communications on a primary server terminal configured to serve a plurality of terminals in a cluster on a network backbone (column 8, lines 18-34) the method comprising: using the primary server terminal to support a plurality of inter-cluster calls for a number of the terminals in the cluster by establishing a route on the network backbone for each of the communication packets transmitted by each of the terminals engaged in one of the inter-cluster calls (column 8, lines 18-34); detecting a server terminal failure (column 8, lines 18-34).

Gudjonsson fails to disclose designating one of the terminals in the cluster as a backup server terminal; and processing a message received from the network backbone at the backup server terminal, the message being addressed to the primary server terminal.

In the same field of endeavor Chrabaszcz clearly discloses designating one of the terminals in the cluster as a backup server terminal (abstract, column 3, line 52 – column 4, line 11); and processing a message received from the network backbone at the backup server terminal, the message being addressed to the primary server terminal (column 3, line 52 – column 4, line 11).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Chrabaszc into the method of Gudjonsson in order to provide fault tolerant execution of application programs in a server network.

Gudjonsson and Chrabaszc fail to disclose a first terminal connected to an ad hoc network.

In the same field of endeavor Cain discloses a first terminal connected to an ad hoc network (column 14, line 56- column 15, line 5).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Cain into the method of Gudjonsson and Chrabaszc in order to provide a method for sending data in ad hoc networks.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joel Ajayi whose telephone number is (571) 270-1091. The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm and Friday 7:30am to 4:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

*Joel Ajayi*

  
CHARLES N. APPIAH  
SUPERVISORY PATENT EXAMINER